

A B S T R A C T

A two-site immunoassay for the qualitative or quantitative detection of alpha-amylase in a test sample, said immunoassay comprising: (1) exposing said test sample to a first ("capture") antibody or fragment thereof which specifically or preferentially binds to a first epitope on said alpha-amylase, under conditions permitting binding of said first antibody or fragment thereof to alpha-amylase if present, (ii) subsequently exposing bound alpha-amylase, if any, to a second ("detection") antibody or fragment thereof which specifically or preferentially binds to a second epitope on said alpha-amylase that is distinct from said first epitope, under conditions permitting binding of said second antibody or fragment thereof to said bound alpha-amylase, and (iii) detecting any binding of said second antibody or fragment thereof to said bound alpha-amylase, wherein either of said first or second epitopes is an epitope comprising one or more of the amino acid sequences: IDRLVSIRTRGQIHS (SEQ ID NO:1), CRDDRPYADG (SEQ ID NO:2), VNWVNKVGGG (SEQ ID NO:3) and variants thereof showing $\geq 80\%$, more preferably $\geq 90\%$, sequence identity. The immunoassay is useful for detecting weather damage (i.e., preharvest sprouting) in cereal grain.

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